

REMARKS

The allowance of claims 4, 5, 7, 12, 13 and 15 is gratefully acknowledged by the Applicant.

Claims 1, 9, 17, 32 and 33 have been amended. Claims 1, 3-9, 11-19 and 32-34 are pending in this application. Applicant reserves the right to pursue the original claims and other claims in this application and in other applications.

Claims 1, 3, 6, 8-9, 11, 14, 16 and 32 stand rejected under 35 U.S.C § 102(b) as being anticipated by Arakawa et al, US Patent no. 6,038,582 (hereinafter "Arakawa"). The rejection is respectfully traversed.

Claim 1 recites a datapath for processing input data. The datapath comprises at least one arithmetic pipeline subdivided into a plurality of subsections. According to claim 1, "at least one of said subsections comprises a flat four-input floating point adder module operating in parallel with floating point adders of other of said plurality of subsections." Applicant respectfully submits that Arakawa fails to disclose the claimed invention.

Specifically, Arakawa discloses a floating point unit consisting of four floating point multipliers, two-input floating point adders and a four-input floating point adder 226 (FIG. 4). The four-input floating point adder 226 is positioned at an output stage of the Arakawa floating point unit. Arakawa does not indicate whether four-input floating point adder 226 is a flat four-input floating point adder as recited in claim 1. Regardless, the Arakawa four-input floating point adder 226, due to its positioning within the output portion of the floating point unit, is not "operating in parallel with floating point adders of other of said plurality of subsections" of the

Arakawa floating point unit. As such, Arakawa fails to disclose all of the limitations of claim 1. Claims 3, 6 and 8 depend from claim 1 and are allowable along with claim 1.

Similarly, claim 9 recites a processor comprising a data processing engine comprising at least one arithmetic pipeline subdivided into a plurality of subsections. According to claim 9, "at least one of said subsections comprises a flat four-input floating point adder module operating in parallel with floating point adders of other of said plurality of subsections." For the reasons set forth above, Arakawa fails to disclose the limitations of claim 9. As such, claim 9 and its dependent claims, claims 11, 14 and 16 are allowable over Arakawa.

Claim 32 a processor system comprising a data processing pipeline comprising at least one datapath. According to claim 32, "a portion of the datapath comprises a flat four-input adder module operating in parallel with at least one floating point adder module of another portion of the datapath." As such, claim 32 is allowable over Arakawa for at least the reasons set forth above and on its own merits.

Applicant respectfully submits that the rejection should be withdrawn and claims 1, 3, 6, 8, 9, 11, 14, 16 and 32 allowed.

Claims 17-19, 33 and 34 stand rejected under 35 U.S.C § 103(a) as being unpatentable over Arakawa. The rejection is respectfully traversed.

Claim 17 recites a graphics pipeline comprising vertex engine comprising a plurality of datapaths. A "portion of the datapath comprises a flat four-input adder module operating in parallel with at least one floating point adder module of another portion of the datapath." For the reasons set forth above with respect to claim 1, Arakawa fails to disclose, teach or suggest the limitations of claim 17. As such, claim 17 and its dependent claims, claims 18-19 are allowable over Arakawa.

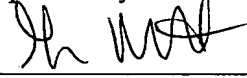
Claim 33 recites a processor system comprising a graphics point pipeline comprising a vertex engine coupled to a first stage of said pipeline. The vertex engine comprises a plurality of datapaths. According to claim 33, "a portion of the datapath comprises a flat four-input adder module operating in parallel with at least one floating point adder module of another portion of the datapath." For the reasons set forth above, Arakawa fails to disclose the limitations of claim 33. As such, claim 33 and its dependent claim, claim 34 are allowable over Arakawa.

Applicant respectfully submits that the rejection should be withdrawn and claims 17-19, 33 and 34 allowed.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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